



United States
Department of
Agriculture

Forest
Service

RO

Reply To: 3420

Date:

OCT 15 1987

Subject: Pest Evaluation of Evaluation Plantation on White River RD

To: Forest Supervisor, Mt. Baker-Snoqualmie NF

On September 16, Sally Cooley and David Bridgwater, FPM Pathologist and Entomologist respectively, visited two areas on the White River RD at the request of Lee Boeckstiegel. Sue Jordan, Carol Aubry, Jerry Zimmerman, Gary Castellane, and Don Atkinson accompanied Sally, Dave and Lee. The purpose of the visit was to determine if insects or disease were causing damage to the trees in these areas.

West Fork Leave: This evaluation plantation was planted with Noble fir 6 years ago. The primary cause of concern in this plantation was the presence of aphids on the boles of many of the trees. Heavy infestations were noticed in July. Insect specimens sent to FPM were identified as a species of Cinara, a true aphid. Because of recent heavy rains just prior to Dave and Sally's visit, only a few aphid-infested trees could be found (apparently the rain washed most of the aphids off of the trees). Aphids appeared to be associated with areas of the bole with no needles, suggesting that aphid feeding has caused needles to drop. Although some needle loss on the bole has occurred, we do not think that there will be any significant impact on tree growth or health due to feeding by this aphid.

Another problem, apparently unrelated to the aphid, was also noticed in this plantation. Death of many terminal buds and some lateral buds has occurred, resulting in mishappened growth where laterals are assuming dominance. Bud death has occurred over the last 2 or 3 years. Discussion in the field among those present resulted in agreement that poor bud survival was most likely due to droughty conditions over the last three growing seasons. Other damage that was seen, such as yellowing needles and stem cankers, is also frequently associated with plant moisture stress. Some family propensities towards greater or lesser bud survival may be found.

Pigeon Leave: The second plantation that was visited was a 12-year-old stand of Douglas-fir, Noble fir, and western white pine. The tips of new growth on many Douglas-fir and western white pine were dead. Noble fir trees were not showing any damage. The symptoms resembled frost damage; however, no frosts had occurred in the month preceeding the damage. Some branches had lesions (dead areas) on the underside, causing them to crook. The lesions were superficial and did not extend into the cambium or xylem. The damage did not appear to be caused by either insects or disease; it looked more typical of that caused by chemicals, such as herbicides. Although no herbicides had been applied to the area, an aerial application of fertilizer had been made in early July. If damage is related to this application, it could be caused directly by the fertilizer itself or by another chemical, applied inadvertantly, as a





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contaminant in the fertilizer or tank. Differential effects on the different tree species probably was related to stage of growth and how tender new tissue was at the time when damage occurred.

Please contact FPM if further assistance is needed.

A handwritten signature in cursive script that reads "James S. Hadfield".

JAMES S. HADFIELD

Acting Director of Forest Pest Management

cc:

Lee Boeckstiegel, Mt Baker Snoqualmie NF
Carol Aubry, Olympic NF
Sue Jordan, White River RD
Jerry Zimmerman, White River RD
Gary Castellane, White River RD
Don Atkinson, Mt. Baker RD
Pete Thiesen, Timber
Dave Bridgwater

